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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,820	04/14/2004	Michael Harris	03028 (3600-428-01)	5625

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EXAMINER

HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/823,820	Applicant(s) HARRIS, MICHAEL	
	Examiner Peter A. Hruskoci	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/30/04, 3/15 and 12/9/05.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-78 is/are pending in the application.
 4a) Of the above claim(s) 51-54 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-50 and 55-78 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☒ Claim(s) 1-78 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-50 and 55-78, drawn to a method, classified in class 210, subclass 724.
- II. Claims 51-54 drawn to a fluid, classified in class 507 subclass 140.

The inventions are distinct, each from the other because of the following reasons:

The fluid of Group II can be produced in a materially different method from Group I such as centrifuge or sedimentation method.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Luke A. Kilyk on 6/12/06 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-50 and 55-78.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 51-54 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-9, 11, 12, 14-17, 21-28, 31, 34-36, 41, 42, 49, 50, 55-62, 64, 68, and 72-74 are rejected under 35 U.S.C. 102(b) as being anticipated by Luxemburg 4,451,377. It is submitted that Luxemburg disclose (see col. 2 line 40 through col. 6 line 35, and Example 3) the method steps recited in the instant claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 13, 32, 33, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luxemburg 4,451,377. The claims differ from Luxemburg as applied above by reciting that the filter cloth has a specific pore size, the precoat filter media layer is a specific thickness, the filtering aid is present is a specific amount, and the drum filter is rotated a specific speed. It is submitted that the specific pore size, layer thickness, amount, and speed utilized in Luxemburg are considered patentably indistinguishable from the specific size, thickness, amount, and speed recited in the instant claims. It would have been obvious to one skilled in the art to modify the method of Luxemburg by utilizing the recited size, thickness, amount, and speed, to aid in filtering the brine. The specific size, thickness, amount, and speed utilized, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific fluid treated and results desired, absent a sufficient showing of unexpected results.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luxemburg 4,451,377 as above, and further in view of the IMMAIR Publication "Continuous Rotary Vacuum Filter Use". The claims differ from Luxemburg as applied above by reciting that the use of specific rotary vacuum filters. IMMAIR discloses (see page 1) that it is known in the art to utilize the recited filters, to aid in liquid solid separation. It would have been obvious to one skilled in the art to modify the method of Luxemburg by utilizing the recited filters in view of the teachings of IMMAIR, to aid in separating solids from the fluid.

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luxemburg 4,451,377 as above, and further in view Beer et al. 4,747,961. The claims differ from Luxemburg as applied above by reciting that the solids are removed with a knife blade. Beer et al. disclose (see col. 4 line 22 through col. 6 line 40) that it is known in the art to utilize a knife to shave off a layer of precoated filter material on a rotary vacuum filter. It would have been obvious to one skilled in the art to modify the method of Luxemburg by utilizing the recited knife blade in view of the teachings of Beer et al., to aid in recovering solids from the filter. The specific rate utilized to move the knife blade, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific fluid treated and results desired, absent a sufficient showing of unexpected results.

Claims 29, 30, 38-40, 63, 66, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luxemburg 4,451,377 as above, and further in view Sweat 4,755,303. The claims differ from Luxemburg as applied above by reciting that the filtering aid comprises sodium hydroxide, and the separated brine is treated to lower the pH. Sweat 4,755,303 disclose (see col. 2 line 4 through col. 3 line 32) that it is known in the art to treat an oil or gas field waste brine with sodium hydroxide to aid in separating solids from the brine by a filter, and to lower the pH of the separated brine with acid, to recover sodium chloride. It would have been obvious to one skilled in the art to modify the method of Luxemburg by utilizing the recited filter aid, and pH treatment in view of the teachings of Sweat, to aid in filtering and recovering the brine. The specific pH utilized, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific fluid treated and results desired, absent a sufficient showing of unexpected results.

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Claims 43-48 and 69-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luxemburg 4,451,377 as above, and further in view Benton et al. 6,818,595. The claims differ from Luxemburg as applied above by reciting that the brine comprises specific formate salts. Benton et al. disclose (see col. 3 line 3 through col. 5 line 32) that it is known in the art to utilize cesium formate in a drilling fluid to aid in adjusting the density of the fluid. It would have been obvious to one skilled in the art to modify the method of Luxemburg by utilizing the recited formate salts in view of the teachings of Benton et al., to aid in adjusting the density of the fluid.


Claims 37 and 75-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luxemburg 4,451,377 as above, and further in view Simon et al. 4,507,208. The claims differ from Luxemburg as applied above by reciting steps for spraying or washing the outside of the filter with water to remove additional brine, and filtering the additional brine to obtain a more purified version. Simon et al. disclose (see col. 5 line 5 through col. 9 line 20) that it is known in the art to utilize steps for washing the surface of a drilling mud filter, and further filtering separated aqueous streams to produce a concentrated brine stream. It would have been obvious to one skilled in the art to modify the method of Luxemburg by utilizing the recited steps for washing and filtering in view of the teachings of Simon et al., to aid in recovering solids from the filter and in purifying the brine. The specific filter utilized to purify the brine, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific fluid treated and results desired, absent a sufficient showing of unexpected results.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Peter A. Hruskoci
Primary Examiner
Art Unit 1724

6/21/06